GRUPPO PROTEINE
SOCIETÀ ITALIANA DI BIOCHIMICA E BIOLOGIA MOLECOLARE

UNIVERSITÀ DI PARMA

IMaSS
Italian Mass Spectrometry Society

Advanced School on Protein Structure and Dynamics: from Spectroscopy to Mass Spectrometry

Parma, February 22-24th, 2017

February 22, University of Parma, Interdepartmental Center for Measurements, Department of Food and Drug

Course Introduction:
9.30-10.00 Proteins and Biologics - Silvia Catinella & Andrea Mozzarelli
10.00-11.00 Circular dichroism, proteins and applications - *Luca Ronda*
11.00 -11.30 coffee break
11.30-12.30 Fluorescence, Foster energy transfer, protein conformations and protein-protein interactions - *Stefano Bettati*
12.30-14.00 Lunch
14.00-17.00 Practical activities on CD and Fluorescence spectra collection, secondary structure determination, protein folding and unfolding
17.30-18.30 Student reading of CD and Fluorescence study cases
19.30 -21.00 Dinner
21.00-23.00 Selected student presentations of CD and Fluorescence study cases

February 23, Chiesi Farmaceutici
9.00-11.00 NMR for protein structure and dynamics - *Serena Faggiano*
11.00-11.30 coffee break
11.30-13.30 Practical activities of NMR experiments
13.30-14.30 Lunch
14.30-15.30 Overview of biological mass spectrometry - *Barbara Pioselli*
15.30-16.30 Sample preparation for mass spectrometry – *Laura Tigli & Brenda Rosa*
16.30-17.00 coffee break
17.00.18.30 Student reading of NMR and MS study cases
19.30-21.00 Dinner
21.00-23.00 Selected student presentations of NMR and MS study cases

February 24, Chiesi Farmaceutici
9.30-10.30 Application of mass spectrometry to determine primary structure of protein: amino acid sequence and post-translational modifications - *Sega Ndiaye (supported by Thermo).*
10.30-11.00 coffee break
11.00-12.00 Mass spectrometry-based tools to analyze protein conformations and dynamics - *Rasmus Uffe Jacobsen (supported by Waters).*
12.00-13.00 Application of mass spectrometry for quantification of peptides and proteins- *Samuele Scurati (supported by Sciex).*
13.00-14.00 Lunch
14.00-17.30 MS Practical activities:
- **determination of post-traslational modifications.**
- **HDX-MS experiments to study protein conformation.**
- **peptide quantitation by mass spectrometry**

17.30 Course Conclusions

Scientific and Organizing Committee
Andrea Mozzarelli (UniPR), Stefano Bettati (UniPR), Stefano Bruno (UniPR), Barbara Campanini (UniPR), Luca Ronda (UniPR), Gianluca Paredi (UniPR), Samanta Raboni (UniPR), Serena Faggiano (UniPR), Gianluca Molla, (UniInsubria), Silvia Catinella (Chiesi), Barbara Pioselli (Chiesi), Laura Tigli (Chiesi)

With the support of Chiesi — People and ideas for innovation in healthcare; SCIEX; Waters — THE SCIENCE OF WHAT'S POSSIBLE.; Thermo SCIENTIFIC